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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,490	04/15/2004	Terry L. Briscoe	324-CIP	6575

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ESCO CORPORATION  
2141 NW 25TH AVENUE  
P.O. BOX 10123  
PORTLAND, OR 97210

EXAMINER

NEWVILLE, TONI E

ART UNIT PAPER NUMBER

3671

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/824,490	<b>Applicant(s)</b> BRISCOE, TERRY L.	
	<b>Examiner</b> Toni Newville	<b>Art Unit</b> 3671	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-40 and 53-62 is/are pending in the application.
- 4a) Of the above claim(s) 24, 25, 34, 35, 39 and 40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-23, 26-33, 36 and 53-62 is/are rejected.
- 7) ☒ Claim(s) 9, 10, 37 and 38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-6, 13, 14, 16, 19, 20, 26, 27, 29, 53, 54, 58 and 59 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 10 of U.S. Patent No. 6986216. Although the conflicting claims are not identical, they are not patentably distinct from each other because the wear assembly defined by claim 10 of the '216 patent comprises all elements described in the pending application. It would have been obvious to one of ordinary skill in the art to remove the boss affixed to each face of the lip described by claim 9 of '916 because such components are not

essential to securement of the wear assembly, and their removal would simply the method of attaching and detaching the wear assembly to the lip.

***Claim Rejections - 35 USC § 102***

3. Claims 1-7, 11-18, 21-23, 27-33, 36, 53-57, and 59-62 are rejected under 35 U.S.C. 102(b) as being anticipated by Brinkley, US 5964547.

Regarding claim 1, Brinkley discloses a wear assembly for excavating equipment comprising a support structure, a wear member mounted on the support structure and a lock (38) releasably securing the wear member (10) on the support structure (14), the support structure and the wear member (10) cooperatively defining an opening (18) for receiving the lock (38), the lock (38) comprising a wedge that is tapered toward one end (Fig. 1), the wedge being formed with a first thread formation (Fig. 1) that is threadedly coupled to a second thread formation (on 33) in the opening such that rotation of the wedge moves the wedge into the opening to tighten the lock in the opening.

Regarding claim 2, the first thread formation on the wedge (38) is defined by a helical groove.

Regarding claim 3, the groove has a large pitch (Fig. 1) so that a substantial portion of the exterior surface of the wedge (38) exists between each pair of turns of the groove to provide a bearing surface for the lock.

Regarding claim 4, the wear assembly further comprises a spool (33 or 24) fit between the wedge (38) and a rear wall of the opening, the wedge (38) being movable along the spool (33 or 24) as the wedge is tightened in the opening.

Regarding claim 5, the first thread formation on the wedge (38) is defined by a helical groove (Fig. 1).

Regarding claim 6, the second thread formation in the opening (18) is formed on the spool (33) as at least one projection (between 46) to engage the groove.

Regarding claim 7, the wear assembly further includes a retainer (30a, 30b) for holding the lock (38) in a tightened condition in the opening.

Regarding claim 11, the retainer (30a, 30b) is mounted on the wear member (10) via tapered blocks 32.

Regarding claim 12, the retainer (30a, 30b) is mounted on the spool (24).

Regarding claim 13, the spool (33) engages the wear member (10) and the wedge (38) engages the support structure (via 24).

Regarding claim 14, the spool (38) has a generally C-shaped configuration that includes a body and a pair of arms (Fig. 1).

Regarding claim 15, the wear assembly further includes an insert (33) that engages the wedge (38) opposite the spool (24).

Regarding claim 16, the first thread formation is a helical ridge (on 38 in Fig. 1) and the second thread formation is a groove structure (46).

Regarding claim 17, the wear assembly further includes an insert (33) that engages the wedge (38) opposite the spool (24).

Regarding claim 18, the insert (33) includes a groove structure (46) to receive the helical ridge (Fig. 4).

Regarding claim 21, the wear assembly of claim 4 further includes a cradle (24) to contact the wedge (38) along a side opposite the spool (33), the cradle (24) having a front surface that is curved generally about a transverse axis to better accommodate shifting of the vertical orientation of the lock during use.

Regarding claim 22, the wear assembly of claim 21 further comprises an insert (32) between the front of the opening and the cradle (24), the insert having a rear surface that complements the front surface of the cradle (Fig. 1).

Regarding claim 23, the front face of the cradle (24) includes a curved (at arms 30a, 30b) concave (mating with 32) surface generally about the transverse axis.

Regarding claim 27, the wear member (10) is an adapter and the support structure (14) is the lip of an excavating bucket (column 2 lines 48-52).

Regarding claim 28, the wear assembly further includes a retainer (30a, 30b) for holding the lock in a tightened condition in the opening.

Regarding claim 29, the first thread formation (on 38, Fig. 1) could inherently be a tapping thread.

Regarding claim 30, the wear assembly further comprises means (24) for effecting shifting of the vertical orientation of the wedge (38) as legs of the wear member (10) shift longitudinally on a lip.

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Regarding claim 31, the limitations therein have been described above with respect to claims 1 and 21.

Regarding claim 32, the limitations therein have been described above with respect to claims 1, 21 and 22.

Regarding claim 33, the limitations therein have been described above with respect to claims 1, 21, 22, and 23.

Regarding claim 36, Brinkley discloses a wear assembly for excavating equipment comprising a support structure, a wear member (10) having a front working portion (near 28) and a rear portion (near 26) configured to mount on the support structure (14) and a lock (38) releasably securing the wear member on the support structure, the support structure and the wear member cooperatively defining an opening (18) for receiving the lock, the lock comprising a wedge movable into the opening to tighten the lock in the opening, and a cradle (33) fit between the wedge and the front of the opening (18), the cradle (33) having a curved front surface (Fig. 5) generally about a transverse axis to fit against a complementary surface in the opening to effect shifting of the vertical orientation of the wedge as the wear member shifts longitudinally on the support structure during use.



Regarding claim 53, Brinkley discloses a method of attached a wear member to a support structure for use with excavating equipment comprising placing the wear member (10) on the support structure (14) such that formations in the wear member and the support structure cooperatively define an opening (18) (column 2 lines 53-57), inserting a wedge (38) that is tapered toward one end and has a first thread formation into the opening such that the first thread formation threadedly engages a second thread formation (46) in the opening, and rotating the wedge (38) when in the opening to drive the wedge further into the opening to tightly retain the wear member (10) on the support structure (column 3 lines 14-17).

Regarding claim 54, the method further comprises inserting a spool (33) into the opening, the spool (33) having the second thread formation (46) to threadedly engage the wedge (Fig. 1).

Regarding claim 55, the method of claim 54 further includes a retainer (30a, 30b) to secure the wedge (38) in a tightened condition.

Regarding claim 56, Brinkley discloses the method of claim 53 further includes a retainer (30a, 30b) to secure the wedge (38) in a tightened condition.

Regarding claims 57 and 59, the wear member (10) is an adapter and the support structure (14) is a lip of an excavating bucket (column 2 lines 52-57).

Regarding claim 60, the spool (24) of claim 4 includes a retainer (30a, 30b) for resisting loosening of the wedge (38) in the opening.

Regarding claim 61, the spool (24) has a generally C-shaped configuration that includes a body and a pair of arms (30a, 30b).

Regarding claim 62, the arms (30a, 30b) each include an inner edge that faces toward the other arm, and wherein the inner edges diverge from each other as they extend away from the body (Fig. 1).

***Claim Rejections - 35 USC § 103***

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brinkley, US 5964547, cited by applicant, in view of Fletcher et al., US 4282665, cited by applicant.

Brinkley discloses a wear assembly as described above regarding claim 7, including a retainer (30a, 30b) for holding a lock (38), the lock having a series of teeth (external threads, see Fig. 1) in a tightened condition in the opening. Brinkley fails to disclose the retainer (30a, 30b) including a resiliently biased detent to engage the teeth.

Like Brinkley, Fletcher discloses a wear assembly, including a wedge (120) and a spool (119) that are fit into an opening (113, 114). Unlike Brinkley, Fletcher further discloses a latch (123) for holding the lock in a tightened condition in the opening (claim 7), the latch (123) including a resiliently biased detent (124) to engage a series of teeth (123) on the wedge (claim 8).

Given the suggestion in Fletcher, it would have been obvious to one of ordinary skill in the art to include a resiliently biased detent on the wear assembly of Brinkley as taught in Fletcher to further prevent movement of the spool and wedge relative to the support structure and wear member, thereby minimizing loosening or breakage of the wear assembly.

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brinkley, US 6301810, cited by applicant, in view of Hedley, US 6009644, cited by applicant.

Brinkley discloses a wear assembly as described above with respect to claim 4, but fails to disclose the spool (33) being integrally formed with the wear member (10).

Like Brinkley, Hedley discloses a wear assembly, including a wedge (11) having a first groove formation (26) that fits into a second groove formation (17A) of a spool (12). Unlike Brinkley, Hedley further discloses the spool (12) being integrally formed with a wear member (Fig. 1).

Given the suggestion in Hedley, it would have been obvious to one of ordinary skill in the art to make the spool (Brinkley; 33) and wear member (Brinkley; 10) of Brinkley integral because making the two parts integral decreases the number of

separate parts in the assembly, thereby improving assembly time and decreasing the possibility of part breakage or wear.

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brinkley, US 6301810, cited by applicant, in view of Hedley, US 6009644, cited by applicant, as applied to claim 19 above, and further in view of Ruvang, 5713145.

Brinkley and Hedley disclose a combination of wear assemblies as described above with respect to claim 19, including an integral spool and wear member, but fail to disclose the element being cast.

Like the combination, Ruvang discloses a wear assembly, for an excavating apparatus. Unlike the combination, Ruvang discloses that it is commonly known in the art to cast the elements of a wear assembly (column 2 lines 20-22).

Given the suggestion in Ruvang, it would have been obvious to one of ordinary skill in the art to make the integral spool (Brinkley; 33) and wear member (Brinkley; 10) of the combination cast as a single-piece member because casting allows for the efficient, cost-effective creation of complex metal shapes.

7. Claims 26 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brinkley, US 5964547, cited by applicant, in view of Launder et al., US 5617655.

Brinkley discloses a wear assembly as described above, including a wear member (10) and a support structure (14). Brinkley fails to disclose the wear member being a point and the support structure being an adapter.

Like Brinkley, Launder discloses a wear assembly, including a wear member (16), a lock (14), a spool (12), and a support structure (18). Unlike Brinkley, Launder discloses the wear member (16) being a point and the support structure (18) being an adapter (Fig. 7).

Given the suggestion in Launder, it would have been obvious to one of ordinary skill in the art to make the wear member (Brinkley; 10) of Brinkley a point and the support structure (Brinkley; 14) of Brinkley an adapter because it is commonly known in the art to affix digging points to adapters in similar ways as adapters are affixed to excavator lips to allow for rigid securement of digging points to excavating equipment..

### ***Response to Arguments***

8. Applicant's arguments filed 1/27/2006 regarding the 102(b) rejection of claims 1, 4, 13, 16-18, 21-23, 27, and 30-33 in view of Brinkley have been fully considered but they are not persuasive.

Regarding the applicant's argument that element 38 in Brinkley is not a wedge and does not force an opening or division, element 38 is rotated into place by drive means 42 "to tighten the connection between the bucket nose and adaptor" (column 3 lines 14-17). Further, Fig. 1 shows the upper part of wedge 38 tapering to a smaller diameter.

Paragraph 2 on the final page of the remarks is unclear to the examiner. Claim 54 was originally rejected under 102(b) by Fidler rather than Brinkley. Furthermore, claim 53 never recites a cradle.

The rejection of claims 1, 4, 13, 16-18, 21-23, 27, and 30-33 in view of Brinkley as described in the previous office action has been repeated.

9. Applicant's arguments with respect to claims 2, 3, 5-12, 14, 15, 19, 20, 26, 28, 29, 36 and 53-56 have been considered but are moot in view of the new ground(s) of rejection.

10. Applicant's arguments, see page 2 of remarks, filed 1/27/2006, with respect to claims 37 and 38 have been fully considered and are persuasive. The rejection of claims 37 and 38 has been withdrawn.

#### ***Allowable Subject Matter***

11. Claims 9, 10, 37 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toni Newville whose telephone number is (571) 272 - 1548. The examiner can normally be reached on Monday - Friday 8 am - 5 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on (571) 272-6998. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Toni Newville  
March 30, 2006



**THOMAS B. WILL**  
Supervisory Patent Examiner  
Group 3600